Chapter III

HISTORICAL DEVELOPMENT OF INDIAN RAILWAYS
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The historical development of Indian Railway is discussed under the following two main heads:

i) Pre-independence era

ii) Post-independence era

i) Pre-independence Era

The Indian Railways occupy a significant and glorious place in India's system of transport. It is playing a significant role in transportation network of the country. Railways have reached to their present place gradually. The early efforts for the introduction of railways may be traced back to the year 1832 when the contraction of railways line between Madras and Bangalore was contemplated. In fact it was the period of 'Railway Mania' as pointed out by Horace Bell. The railways had been introduced in 1825 in England in 1829 in France and in 1830 in America, in 1831 in Canada, in 1836 in Russia and were functioning successfully.

Industrial Revolution had taken place in England and the British industries needed raw materials and wanted a lucrative market for selling the finished products. India, then a colony of England, was full of resources and wealth but without proper means of transportation and
In order to achieve their goals, it was very much necessary for British industries to develop railway transport in India. British investors had invested in railways in many British colonies and had earned fabulous profits, so they were interested to invest in Indian Railways also. Not only this but political and military considerations were also the cause of Indian Railway's development.

The East Indian Railway Company and the Great Indian Peninsula Railway Company were incorporated in England for construction of two small lines near Calcutta and Bombay respectively. These companies entered into a contract with the East India Company on 17th August, 1849 for the construction of railways in India. Indian railway development, thus, started from this date. By 1853 a railway line from Bombay V.T. to Thana, a distance of 21 miles, was opened for traffic and the first railway train in India was inaugurated on the 16th April, 1853.

The history of railway development in India from 1844 to present time has been divided into several well defined periods to facilitate its thorough study.

Old Guarantee and Assistance Period of Railway Construction (1844-1869)

The railway construction in India started under the state guarantee and assistance. The private companies
which undertook construction work were not prepared to invest such a huge capital due to uncertainty of demand of railway service. No industrial Revolution had preceded the railways in India. Trade, industry and agriculture were in extremely poor condition and therefore, there was no certainty of the availability of goods traffic to railways in sufficient quantity and on regular basis. Likewise the demand for passenger traffic was also not certain due to time-worn habits, ideas, poverty, illiteracy, fear and religions dogmas of Indian People. Thus, uncertainty of demand and the heavy capital expenditure involved a great risk of capital being lost if railway failed to operate. Even the enterprising promoters of railway companies in British were not prepared to invest without a guarantee of return on investment from the Government of India. Moreover, unlike Great Britain, the USA, Germany and other advanced countries, the railway construction in India was not the result of indigenous enterprise or capital. Then, the railways in India were viewed not from the angle of commercial benefit but from the standpoint of efficient administration of British rule in India, movement of military troops and materials and for serving other alien interests. Therefore, the demand of private companies for guarantee of interest on capital investment was accepted.

"Government relieved the shareholders of all risks, gave them some expectation of profit over all above
the interest, and in return claimed reasonable powers of control and the right of purchases.\textsuperscript{4}

The first proposal for the construction of railways in India were submitted in 1844 to the East India company by Mr. R.M. Stephenson, which included the construction of lines by railway companies to be incorporated for the purpose.\textsuperscript{27} A contract for the construction of an experimental line of 160 kilometers from Calcutta to Mirzapur or Raj Mahal at an estimated cost of £1 million was entered into with the East India Company in 1840.\textsuperscript{28} A similar contract was made with the Great Indian Peninsula Railway for the construction of a line from Bombay to Kalyan at an estimated cost of $0.5 million.\textsuperscript{29}

These two companies were the earliest and the most important among the old guaranteed companies.\textsuperscript{30} Within a decade, eight companies were formed.\textsuperscript{31} The Eastern Indian Railway\textsuperscript{a}, the Great Indian Peninsula Railway\textsuperscript{b}, the Madras Railway\textsuperscript{c}, the Bombay Baroda and Central Indian Railway\textsuperscript{cl}, the Scindia Railway\textsuperscript{c}, the Eastern Bengal Railway\textsuperscript{f}, the South Indian Railway\textsuperscript{g} and the Calcutta\textsuperscript{h} and South Eastern Railway.\textsuperscript{h} By 1869 there were as many as eleven companies incorporated in England for the purpose of constructing and managing railways in different part of India.\textsuperscript{32}

The terms of contracts entered into between the Government and railway companies were as follows:
i) The Government would give free land for the construction of station buildings and quarters, and for laying down railway lines.

ii) The agreement shall be binding on both parties for a period of 99 years.

iii) Railway companies were guaranteed interest on capital outlay @ 4½ to 5%.

iv) The Government would exercise full powers of supervision and control on railway lines and allied works.

v) No railway company would be entitled to construct new lines or extend old ones without permission from the Government.

vi) After 99 years the entire land on which railway stations and quarters would be built and railway lines laid would become the Government property.

vii) The Government had reserved its right to purchase these lines after a period of 25 or 50 years and payment to the companies concerned was to be made of the average rate of the last three years.

viii) Railway companies would pay 50% profits to the Government.

ix) A railway company might hand over the management to the Government at any time, and realise the capital invested by it.

x) For exchange purpose 1 rupee was equal to 1 sh.10d.
The British capital was invited at an exorbitant rate of interest ranging from 4 ½ to 5 in the money deposited in the Government Treasury for the purpose. This "killed effort for economy promoted recklessness, and involved the country in liabilities much beyond what the people of India could bear of the needs of the times could justify".

The shareholders were fully satisfied because their interest was guaranteed. The Rights Honourable William N. Masey considered that the East India Railway Company had cost twice in much as it ought to have cost. According to him, "all the money come from the English capitalists, and so long they were guaranteed five percent from the revenues of India, it was immaterial to them whether the funds that they lent were thrown into the Hoogly or converted into brick and motor".

2. Unlimited Financial Liability:

There were neither limit on the maximum amount of investment nor the maximum period of guarantee. The guarantee started at the time when money deposited into Government treasury by the companies, although in the most of the cases the actual construction was undertaken after a considerable delay. And it placed a heavy yoke for Indian tax payer. The loss to Government went on increasing year by year. The total loss between 1849 to 1870 amounted to Rs. 16 crores.
Besides, these losses, the government had to spend on the purchase of land, survey and on supervision and also considerable loss was sustained on account of the rise in the rate of the exchange. C.N. Vakil, has stated that "Giving a flat rate of interest and inviting entrepreneurs was act of economic suicide".

3. Incentives to British Capital Only:

The investment of foreign capital had enough justification because the indigenous investors were reluctant to risk their capital. But it is equally true that no proper system and attempts were made to attract Indian capital to enter the field. Of the total capital of more than £ 26 million raised up to 1869 less than one percent was subscribed in India.

4. Inactive Management:

There was lack of energetic management. The railways were being managed by private companies, which were incorporated in England. Though these companies were incorporated for Indian Railway development but these companies had no interest in India. It had only monetary considerations. Under guarantee system 5% interest was guaranteed, so the shareholders did not take any interest. Due to this the engineers and the agents of the companies had no drive to do their work economically and efficiently.
5. Indian Interests Ignored:

The main aim of construction of railway lines in India was to serve the British interest. The early railway construction was done in such a way which may facilitate the civil and military administration to consolidate the British rule in India. The important parts and markets were linked so that British industries could get raw materials easily and dispose the finished goods. No systematic policy was adopted to serve the needs of Indian industries trade, or agriculture. Neither the Indian capital and other resources were properly used nor were the Indians given a share and place in employment.

6. Slow Progress:

Due to the inadequate government control, indifference and incompetence of companies and faulty planning of railway development the progress of construction of railway lines was very slow. During 17 years between 1853 and 1869 only 4287 miles of railway lines could be constructed. The average comes to about 250 miles of lines per year. The progress till 1860 was only 100 miles of lines per year. However, this average rose to 400 miles of lines per year during the remaining period. The country actually needed an extensive scheme of light lines at a moderate cost. But what actually happened was the slow construction of broad gauge lines at very high,
State Construction Period and Administration Period (1869-81)

Due to several drawbacks the guarantee system was ultimately abandoned by the year 1869. During this period no fresh contracts were entered into with the guaranteed companies, but the government itself undertook the responsibility of railway construction. The public as well as eminent authorities were criticising the guarantee system. As early as in 1858 Lord Canning took notice of the carelessness of the companies in the management of capital, and objected to the working of guarantee system. He suggested that in any future contracts involving a guarantee by state and essential element should be a scrutiny and careful examination of the estimate beforehand, and that the state should limit the guarantee strictly to such amount of capital as had been previously found necessary. The members of the Viceroy Council were even stronger in their views.

Sir J.P. Grant, President of the Council condemned the guarantee system as involving the great evil of double management. The Finance Member Naing said that as the management was non-resident and the data as to first cost and probable traffic were very uncertain, the shareholders
depended almost exclusively on guarantee. All the advantages of private enterprise were, thus, neutralised.

While the evils of the original guarantee system were under discussion, several attempts were made to form private companies for railway construction without guarantee. In 1864, the Secretary of State for India decided to encourage new construction only with some assistance other than a guarantee.

In case of the Indian Branch Railway company a subsidy of £100 per annum per mile opened for 20 years from the date of opening, was proposed, together in the additional sum of £1000 for every bridge that required £10,000 or more for construction. The East India Tramway company was also offered similar terms. An important feature of these proposals was that, they would involved no interference by Government except such as was useful for the safety of the public, while projectors were required to complete their works, economically and rapidly within the time fixed. But these efforts did not bear fruits and could not succeed. Then the Secretary extended the period of guarantee of old companies. Thereupon the Government of India, headed by viceroy lord lawrance, strongly refuted the arguments of railway companies and considered all the advantage accruing their from as illusive. He ably made a case for state construction and
management. He wrote:

"The Govt. of India has for several years been striving to induce capitalists to undertake the construction of railways in India at their own risk and on their own responsibility with a minimum of Govt. interference. But the attempt has entirely failed and it has become obvious that no capital can be obtained for such undertaking otherwise than under a guarantee of interest fully equal to that which the Govt. would have to pay, if it borrows directly on its own account."

Lord Lawrance prior to his departure from India recorded his conviction in a very able minute dated 19th Jan., 1869, and showed at great length the necessity for direct state construction of Indian railways. He advocated that it was totally unreasonable and inconsistent with the true interests of India to continue a system under which the revenues have to bear the whole risk of loss and could derive no direct benefit, in preference to the one which with no greater and probably much reduced risks could entitle the public to the whole of the direct profits, making them available for reducing taxation or preventing the imposition of new burdens. With the appointment of the Duke of Argyle as Secretary of State for India in 1869 and the succession of Lord Mayo as the viceroy, the history of Indian railway took a turn for a better. Lord, Mayo's Government entirely agreed with the policy of Lord Lawrence and in March of the same year, the Govt. of India again pressed for a definite change. Ultimately the policy of direct state construction and management for new lines
was accepted by the Secretary of State. Approving the policy of state construction and management the secretary of state observed: "The time now has arrived, when both in raising and in expending such additional capital as may be required for new lines in India, the Govt. should secure for itself the full benefits of the credit which it lends, and of the cheaper agencies which are to be at its command." He also expressed the hope that "with the Govt. construction there would be a single authority and single management, and a considerable reduction in cost of Indian railways."^10

Break of gauge accepted as a necessary evil :

During this period meter gauge lines (3 ft 3 inches in width) were laid instead of broad gauge lines (5 ft. 6 inches in width) because the meter gauge was economical and, was expected to contribute towards the earlier consummation of the necessary extensions. All the lines constructed in the next decade were meter gauge lines. The cost of construction was relatively cheaper. It was only £ 6,470 per mile, while most economically constructed lines under the old guarantee period had cost more than £ 13,000 per mile. However, the evils of break of gauge were well known to the government of India, but the circumstances had forced it to adopt the break of gauge due to financial difficulties.
Financial policy and arrangements:

With the adoption of the new policy of state construction large schemes were at once undertaken and for financing them capital was raised directly by the Government. In 1871 a select committee of the British Parliament was appointed to review the schemes of railway construction. In order to implement its recommendations the Secretary of State for India Lord Salisbury made the following suggestions in 1874.

a) Only those lines should be laid which would become productive in the near future, and the sum of money borrowed should be paid back during the period of their construction.

b) Money should be borrowed within India.

c) Money spent on famines should be paid out of the annual income from the railways.

d) The annual expenditure on railway construction should be limited to £25 lakhs per year.

Although this expenditure was limited to £25 lakhs per year, yet the actual expenditure was higher, and in 1879-80 it was in no way less than £35 lakhs. It is interesting to note that the average expenditure for this period came to be more than £40 lakhs.

This happened as the Govt. of India had to suffer heavy losses due to continued fall in the value of silver;
construction of strategic and unproductive lines, such as in the Punjab and Sindh and other expenditure caused by Afghan War; and heavy expenditure on famine prevention and relief.\textsuperscript{125} It was, however, decided to bring down expenditure on "extraordinary works" within the amount which can be borrowed in India on advantageous terms" Another important change was announced that the construction of railways by private capital should be encouraged on the exclusive security of the success of the undertaking without a guarantee.\textsuperscript{126} The financial assistance from provincial governments and Indian States were also undertaken.\textsuperscript{127, 128}

Progress during this Period:

From 1869 to 1881 the total mileage of Railways in India increased from about 4,287 to 9875 miles, the average increase being 468 miles per annum, compared with nearly 250 miles per annum of the previous period.\textsuperscript{129} Of the total length opened upto 1881, company lines accounted for 6132 miles.\textsuperscript{129} Indian state lines aggregated 446 miles, and the remaining 3297 miles were state lines.\textsuperscript{129} Of those about 7000 miles were on the broad gauge, and a little less than 3000 miles on narrow gauge and the remainder of about 2737 miles on the meter gauge. Towards the close of the period more than 2,000 miles of new lines were under construction.\textsuperscript{130}
The cost of construction during this period was less than that previous period. The financial results to the state had, on the whole, been slightly encouraging although the state lines did not come up to the expectation.

Appraisal

The experiment of state enterprise was considered a good change. Railways grew rapidly and especially the state railways were a paying concern from the very beginning. The adoption of meter gauge lines proved economical and it extensively knitted various centres through the railway lines. The extension of railways was not done to serve the needs of Indian trade, industries and agriculture but the policy of serving British interests continued. However, rapid expansion of railways helped the growth of Indian trade and industries also.

New Guarantee Period (1881-1900)

The Govt. had to face various difficulties. These were mainly financial in nature. The recurrence of famines, unproductive expenditure caused by the Frontier War with Afghanistan, and falling value of the rupee were the main factors which had increased the financial burden of the Government, and consequently it became extremely difficult to push expansion of railways rapidly. The chronic financial inadequacy forced the Government to take
help from private companies for rapid expansion of railways which had become necessary.\textsuperscript{142}

During this period contracts were entered into with the following six private companies:

(i) Bengal Central Railway Company (1881), the Bengal and North Western Railway Company (1882), the Rohilkhand and Kumaon Railway Company (1882) the Southern Maratta Railway Company (1882), the Indian Midland Railway Company (1885) and the Bengal Nagpur Railway Company (1887).\textsuperscript{143} Different contracts were made on different modified terms.\textsuperscript{144} No definite policy was followed either of financing or that of management and construction.\textsuperscript{145}

In 1881, Lord Hartington, the then Secretary of State for India, formulated some rules for rail construction.\textsuperscript{146} He divided railway into 3 categories: a) Productive, b) Unproductive and c) Protective.\textsuperscript{147} A railway line which could yield 4% interest on the capital expended on it, within 5 years of its completion, was called productive.\textsuperscript{148} The railway lines which could not yield any returns was termed as protective.\textsuperscript{149} Such lines were meant for protecting the lives of people from famines and were constructed in those places where there was danger of the occurrence of famines.\textsuperscript{150}

The Government of India proposed to leave to private enterprise all such lines as were profitable to
attract it and to confine themselves to the construction of those railways which private agencies were unwilling to undertake because of their unprofitable character. The cornerstone of new policy, was the exclusion of the state from the field of productive tenes and its confinement merely to those railways which were protective or unproductive. The two together were expected to meet the demand adequately and in time.

"In the beginning of this period, a scheme for the construction of 6400 kilometers of railway lines was submitted to the Secretary of state for India. This scheme was to be implemented within 6 years; total expenditure being estimated at £ 320 lakhs. The proposal was for two types of railway lines: (i) railways which were important from the point of view of protection and safety of the country and (b) railways which were to be constructed for the development of trade and commerce and provided travelling facilities to passengers.

Since the plan was too ambitious a select committee of the British Parliament was appointed in 1884 with the following terms of reference "to inquire into and report upon the necessary for a more rapid extension of railway communication in India and the means by which the objects may be best accomplished, with reference to the report of the Famine commission and with due regard to the financial conditions of India."
Recommendations:

After carefully studying the question of a more rapid expansion of railway communication, and examining the financial position of the country, the committee made the following recommendations.

i) The work of rail construction should be shared both by the government and railway companies.

ii) The Government should undertake the construction of self supporting lines.

iii) Railway kilometrage should be increased for the development of internal and foreign trade of India for saving the country from the ravages of famines.

iv) The government can borrow £30 lakhs per year for rail construction but this money should be borrowed within India only.

(v) Main routes should have broad gauge line.

(vi) The extension of railway should not involve additional taxation.

The Committee also remarked: "For political as well as financial reasons it was desireable that loan should be raised in India. On the other hand, when the difference between the rate of interest in India and in England is so considerable as to afford full compensation for the comparative disadvantages of borrowing in England, the Secretary of State should not hesitate to borrow such
moderate sums in this country (England) as will enable the Government to complete such public works as have been sanctioned.

Most of the recommendations of the committee were accepted.

Progress of Construction

The progress of construction during this period was steady. On an average 744 miles of railroads were laid per year as compared with the average of 468 miles of the previous period of state construction. There were altogether 96 different lines operating to traffic, administered by 33 railway administered of various types. Except the BB & CI and Madras Railway, all the guaranteed lines come under state ownership by the end of this period. These two also subsequently come under state ownership in 1905 and 1907 respectively. But the management of railways in most of the cases was entrusted to old companies under new contracts.

The worst effects of the guarantee system were removed by the revised term which were more favourable to the state. Only a few lines were transferred to direct state management. The total mileage had gone upto 39603 by 1900, which was 9,875 miles in 1881. The trunk and feeder lines were constructed on broad gauge, hilly railway lines were constructed on meter gauge (2'-6") and sub-urban and light railway lines were laid on narrow gauge (2').
Appraisal

Although the progress under this period was quite steady and in no way discouraging, yet the policy of the railway construction, ownership management and financing was not definite which led to many complications. Regarding the policy of ownership and management Chesney has rightly remarked: "To see a railway one day and buy another the next, to build a railway and then lease, these inconsequential proceedings are sufficient indication of the total want of a systematic policy and good judgement which has characterised the railway administration of the Indian Government". Thus, the policy followed by the Government was unstable and vacillating. The century ended with the end of sorrowful days of railways.

4. Pre-war Period (1900-1914)

"The twentieth century dawned with the prosperity of Indian railways. With it started a new era of development of Indian railways which brought net gains to the state and ceased to be a burden on it.

From 1849 to 1900 the Government of India suffered financial losses on account of Indian railways traffic was increasing year after year. This forced upon the authorities the need for increasing efficiency and capacity so that traffic may be properly handled.
Robertson Committee 1901:

In 1901, Mr. Thomas Robertson was appointed to investigate into the railway administrative organisation and system. He criticised the duality of the system then prevailing in India; and ascribed the majority of the evils found on the Indian railways to it. After a careful study of the entire situation he recommended as follows:-

i) A Railway Fund should be created for the improvement of old lines and the construction of new ones.

ii) All lines should be leased out to railway companies.

iii) A Railway Board should be established.

iv) Step should be taken to improve the operational efficiency of railways.

v) Guarantee system should continue for the construction of new lines.

The first three suggestions were very significant. Sufficient amount of money was not available from the General Reserve Fund for the development of railways. With the creation of a separate railway fund the pace of railway construction and improvement could have been accelerated. Upto that time, railway management was inefficient as part of the railway was company managed; and the rest was under state management. The Indian public was completely against the view that the entire railway system should be handed over to railway companies. The Government did not consider it worthwhile to create a
separate railway fund; but it established a Railway Board in 1905 with 3 members - 1 president and 2 members; and put it under the Department of Commerce and Industries.\(^{197}\) Even after the establishment of Railway Board, railway efficiency did not improve.\(^{198}\) No attention was paid to the provision of passenger amenities.\(^{199}\)

**Mackay Committee 1907**

When the financial position of the Indian railways did not improve, the Mackay Committee was appointed in 1907 under the chairmanship of Sir James Mackay (later known as lord Inchcape) to examine and study the financial and administrative problems of the Indian railways.\(^{200}\) Submitting its report in 1908, the committee recommended:

i) At least 16000 kilometers of railway lines should be laid to provide increased transport facilities in this vast country.\(^{201}\)

ii) Instead of Rs. 4 crores to be spent on railway construction per year as allocated earlier, an amount of Rs. 18.75 crores should be provided.\(^{202}\)

iii) Big railway companies should construct branch lines with their own capital.\(^{203}\)

iv) Railway lines directly controlled by the Government should be handed over to railway companies to relieve the former of the heavy burden of responsibilities.\(^{204}\)
v) The powers of the Railway Board should be increased so that it might help the railways to improve the standard of their operational and administrative efficiency which had been vehemently criticised earlier.

Progress:

The Railway Board was reorganised in 1908 within 6 years (from 1908 to 1914) the Government invested Rs. 92 crores; and laid about 16,000 kilometres of branch and feeder lines. Railway kilomettage rose from 39603 in 1900 to 56456 in 1915 and capital outlay from Rs. 329.53 crores to 495.09 crores. During the first 40 years of railway existence, financial loss to the Government amounted to Rs. 58 crores. After 1900, the Government began to gain, and railway construction received impetus.

Appraisal

The main policy of management, ownership and financing remained, however, undisturbed Government took over the ownership of the lines whenever it found convenient and handed them over to companies for management under new contracts. The Government policy of financing was criticised as it did not sanction enough funds for repairs, reconstruction and development of railway which caused difficulties to the public. The policy of management by English companies was also vehemently criticised.
5. First World War Period and After (1914-1921)

The performance of the Indian Railways got seriously affected during the war period due to heavy movements of troops, materials, food grains, and agriculture produce. Part of railway staff, rails, and rolling stock were despatched to East Africa. Goods wagons were used to carry passengers. Owing to the shortage of wagons, goods rotting in railway godowns before they could be loaded. Regarding this breakdown, the Acworth Committee observed:

"There are scores of bridges with girders unfit to carry train loads up to modern requirements. There are many miles of rails, hundreds of engines, and thousands of wagons whose rightful date for renewal is long over past".

In order to fulfill the war requirements, railway workshops were used to work at full pressure for the manufacture of portable huts, armoured cars, and several other kinds of military equipments. The Government was forced to reduce passenger services, withdraw concessions and increase fares. All these difficulties invited complaints from the public and trading community. There was widespread dissatisfaction with the working of railways and therefore, the public opinion became hostile to the management of state railways by foreign companies, and demanded the state to take over the management from the companies. However, some strategic lines were added during
the war period also. With the result that the length of railways upto 58,776 kilometers, and the capital investment rose upto Rs. 566.38 crores.

6. Overhauling of Railway Policy Period (1921-1925)

During war period the condition of Indian railways was seriously deteriorated, and it reached to its extreme point at the end of war. Public was making complaints against the working, management, financial condition and efficiency of railways which were too far from satisfaction. So the Secretary to state for India, appointed Indian Railway inquiry committee under the chairmanship of Sir William Acworth on the 1st November, 1920 with the following terms of reference:

1. To consider, as regards railways owned by the state, the relative advantages financial and administrative, in the special circumstances of India of the following methods of arrangements:

   a) Direct Stage Management.

   b) Management through a company domiciled in England and with a Board sitting in London.

   c) Management through a company dominated in India and with a Board sitting in India.

   d) Management through a combination of (b) & (c) and advise as to the policy to be adopted as and when the existing contracts with several companies can be determined.
2. To examine the functions, status and constitution of Railway Board, and the system of control exercised by the Government of India over the railway administration, and to recommend such modifications, if any, as are necessary for the adequate disposal of the railway business of the Government.

3. To consider arrangements for the financing of railways in India, and in particular the feasibility of the greater utilization of private enterprise of capital in the construction of new lines.

Main recommendation of the Acworth Committee

After a very exhaustive study of the Indian railways the committee submitted its report in 1921 with the following recommendation.

i) State Management:

On the management of railways the committee was divided. Half of the members favoured direct state management of railways while the rest recommended that the management should be entrusted to the companies which were domiciled in India. The President himself favoured state management. It was his casting vote which decided the issue in favour of state management. The reason was that the private companies would simply follow a commercial policy to earn high dividends. Cheaper rates and fares, better facilities and impartial treatment could be
provided by the state only. Company management could not promote Indian enterprise which was necessary for railway development in India. Regarding the management by companies domiciled in England and having a Board sitting in England, a distance of 9,000 Km away was mostly inconvenient and un conducive to the growth of Indian trade and commerce. The majority report observed, whatever may have been the position in the past, we think the advantage of English management are now outweighed by the great disadvantage of absentee control and the difficulty of keeping in close touch with the modern social and trade conditions of India. Further, it pointed out that "our experience and investigation have led us to the quite definite conclusions that the system has never worked satisfactorily and can not be made to do so. The utmost wisdom at the part of the Government can not prevent injury caused by unwise and unprogressive policy of "company's abroad."

ii) Separation of Railway finances from general of state finances -

In this regard the committee observed, "we recommend that the finance department should cease to control the internal finance of the railway that the railways should have separate budget of their own, be responsible for earning and expending their own income and for providing such not revenue as is required to meet the
interests on the debt incurred, or to be incurred by the government of railway purposes and that the railway budget should be presented to the legislation assembly not by the finance member of the council but by the Member in charge of the railways." Further, the committee recommended that, subject to independent audit by the Government of India, the Railway Department should employ its own accounting staff and be responsible for its own accounts.

iii) Replacement of Railway board by a railway commission:

The Railway Board should be changed into a Railway commission. In this connection the committee remarked "we propose great changes in the constitution, status and functions of the Railway Board. We recommend that at the head of the Railway Department there shall be a member of council in constant touch with railway affairs, and we suggest that with this object a new department of communication will be created which will be responsible for railway posts and inland navigation, road transport (as far as the central government deals with this subject) and posts and telegraphs. We think that the member in charge of communications must be an experienced administrator and be able to represent his department both in the legislature and with the public. We do not think be need be expected to be a technical experts. The committee further recommended that the Railway Board should be called the Railway commission.
iv) Establishment of railway rates tribunal and advisory committees:

A railway rates tribunal consisting of an experienced lawyer as Chairman and two member to represent railway and commercial interests should be established to consider the disputes of rates and fares. For better public relations the establishment of central and local advisory Committees having representatives of public was also recommended.  

v) Policy of rapid Indianisation:

The committee considered it advisable to adopt a gradual Indianisation policy by taking Indians in the management cadre of railways.

vi) Establishment of reserve and depreciation funds:

The committee recommended the establishment of Reserve Fund and Depreciation Fund for facilitating the organisation and repairs of the rolling stock etc.

vii) Construction of branch lines by main lines:

The committee recommended that the gauge question should be further investigated in periods of easy money. The branch lines should be worked as far as possible by the main lines to which they are tributaries.

The recommendations made by the Acworth committee for overhauling the whole railway policy in India were an important landmark in the history of Indian railways.
policy followed thereafter was based on these recommendations which brought major changes in railway management and system of financing.

Acceptance of recommendations

The Government of India accepted almost all recommendations of the committee. In 1925, the government took over the managements of the East Indian and great Indian peninsula Railways. More attention was paid to passenger's amenities and more comfortable seating accommodation in railway compartments were provided. With the state management new jobs for the Indians were created.

The government did not accept the recommendation of the committee regarding the establishment of a Railway Rates Tribunal. It however, appointed a Rates Advisory Committee with limited powers. The Railway Board was reconstituted. Besides, the central and Local Advisory Committees were also formed to help the railway administration.

Railway finances were separated from general finances so that railway did not depend upon the unappreciative liberality of the Finance Department. It was a reality that the government officials were ill qualified to tackle the complicated problems of the railways. It was therefore essential to make the railways completely free for their internal arrangement.
In 1925, the total length of railways was 61,232 kilometers and capital outlay amounted to Rs. 733.37 crores.

7. Separation convention period (1925-1930)

This was a period of prosperity for the Indian railway. The Acworth committee had recommended in 1921 that railway finances should be separated from general finances of the country. Railways being commercial undertakings, could not function independently as their finances depended upon general finance. Moreover, by separating railway finances, the Government could also be freed from the inconveniences and embarrassments of the old system. The question of separation was first placed before the Assembly in 1921 in the form of a resolution. A joint committee of the two house Railway Finance Committee was appointed to investigate the question of finance separation. The committee declared that immediate separation was impracticable, but it recommended a guaranteed programme of Rs. 150 crores, the amount to be spent, within a period of 5 years, on railway improvement.

In 1924, the proposal for the separation of railway finances was passed with the following conditions:

a) The railway would contribute to the General Revenue a definite ascertainable annual income roughly 10% on capital at charge.
b) The Government would also receive 20% of surplus profits but the loss incurred on the strategic lines or the interest on the amount invested in them would be deducted.

c) A Railway Reserve Fund would be started with the remaining amount, and if this amount was more than Rs. 3 crores per year, 2/3 of the surplus would go to the Railway Reserve Fund and 1/3 of the General Reserve Fund.

d) The Railway Reserve Fund would be used for improving the economic condition of the railways and making payments to the Depreciation and General Fund.

e) The Railway Budget would be presented before the general budget, and separate days would be fixed for its discussion.

f) A depreciation fund should be established.

g) If the amount allotted to a scheme in the budget fell short, money might be borrowed from the Reserve Fund.

The separation of railway budget from the general budget was the most important change of the post-war period and heralded a new era in the financial administration of Indian railways. But the value of this single change was impaired by the rigid provision of fixed contribution to the general finance, irrespective of the efficiency of the railway working.
Progress:

The Government took over the management of East Indian Railway in 1924 and that of Great Indian Peninsular Railway in 1925. It also purchased Delhi Ambala Kalka Railway in Handi 1926 and took over the management from Burma Railway Company on termination of the contract in 1928. Thus, the policy of nationalisation of railway ownership and management was vigorously pushed ahead.

Another remarkable feature of this period was the introduction of electric branch trains in the areas of Bombay and Madras. In 1929-30 route kilometrage had gone up to 16,758 and capital investment had amounted to Rs. 856.75 crores.

8. Depression Period (1931-1936)

This period witnessed the great economic depression which adversely affected the Indian railways. During the six years commencing from 1930-31, when the slump was in full swing, the railways were in a bad financial plight and new construction and investment were practically negligible. The traffic had decreased due to low trade and railroad competition. Floods and earthquakes further deteriorated the financial condition of the railways. The condition was so bad that substantial sums had to be borrowed from the Reserve Fund and the Depreciation Fund to meet the interest liability on capital. The net revenue earned during these period was less than the interest the
railways had to pay on their capital at charge and there was no question, therefore, of making contribution to the state. However, according to separation convention these unpaid contributions were treated as arrears and were accumulating.

**Retrenchment sub-committee 1931:**

The Government appointed the Retrenchment sub-committee in 1931 under the chairmanship of Lord Inchicape to explore all the possible avenues of economy in expenditure consistent with the efficiency of the railroad system.

**Recommendation:**

The sub-committee recommended as follows: -

i) The number of members of the Railway Board should be reduced from 3 to 2.

ii) In place of Railway Rates committee, an ad hoc committee should be formed.

iii) The salaries of railway staff should be gradually reduced from 31½% to 20%.

iv) The publicity Bureau should be abolished, and its work be entrusted to the Railway Board.

v) The number of directors should be reduced from 5 to 3 and that of Deputy Directors from 5 to 4.

vi) The post of Deputy Secretary Directors of Railway Audit and Assistant Director of Finance should be abolished.
vii) The post of Chief Controller, Deputy Controller, Assistant Chief Controller in the Control Standards office should be abolished and replaced by the Deputy Director of Accounts in the Railway Board office.  

viii) The total cost of establishment in all these offices should not exceed Rs. 5 lakhs.  

ix) The total other charges should be limited to Rs. 5.50 lakh.  

x) Expenditure on publicity should be reduced by Rs. 5 lakh and the staff of the staff college, Dehradun should be reduced.  

The Government accepted at these recommendations. The implementation of most of them resulted in a saving of about Rs. 3 crores.

Pope Committee 1932

The Government of India invited Mr. Pope in 1932 to investigate the working of Indian railways and suggest measures for retrenchment and economy. Pope committee which was in 1932 recommended as follows:

i) Stress should be laid on job analysis so that efficiency might improve and economy might be effected in the working of the railways.

ii) Parcel offices should be opened in cities and return journey tickets should be issued for a week.
iii) Freight rate should be reduced to increase goods traffic.  

iv) Special trains should be run to places of pilgrimages.  

v) A comprehensive study should be undertaken to find out the quantum of goods traffic, and the capacity of railways to carry it.  

vi) Measures should be adopted to check ticketless travelling.  

vii) Research and experiments should be undertaken and the Railway Board should arrange to disseminate technical knowledge.  

viii) Alteration in rolling stock should be made in such a way according to standardisation and improvement in design that the least serviceable material was scrapped.  

ix) An increase in carriage and wagon hot boxes had been causing commercial and operational inconvenience. In order to check it, coordinate efforts should be through the Railway conference Association.  

x) Manpower in railways should be reduced.  

xi) Plant and experiment should be maintained efficiently in accordance with the principle of spending money for saving money.  

The Government accepted these recommendations and implemented them. Weekened tickets were issued booking
offices were started in big cities, pooling of locomotives was effected and job analysis adopted.  

9) Recovery Period (1936-1939)

Till 1936 almost the period of depression was overs, the period of recovery set in. A British financial expert named Sir Otto Nilmeyer, was appointed in 1935 to advise the Government of India on the distribution of income tax between centre and provinces, he observed. "The position of railways is frankly disquieting. It is not enough to contemplate that in five years time they may merely cease to be in deficit. Such a result would also tend to prejudice or delay the relief which the provinces are entitled to expect. I believe both the early establishment of effective coordination between the various modes of transport and the thorough going overhaul of railway expenditure in itself are vital elements in the whole provincial problems."

He also recommended that if the railways were able to contribute to the General Revenues, half the income tax realised in a year should be distributed among the various provinces.

Public Account Committee 1936:

The public accounts committee commented strongly the railways for their inability to earn profit and control expenses. Again in 1936 it urged the Government of
India that, "The Government of India should immediately obtain the services of an acknowledged expert in railway management to conduct an examination of the whole field and recommend steps which will secure definite (i.e. other than mere hopes of increased revenue due to improving trade) improvements in railways finances to the extent of something like Rs. 3 crores a year immediately and ultimately of such magnitude as is required to maintain full solvency on a strict accounting basis. And to avoid misconception, we add that the terms of reference should exclude the possibility of securing this by a mere transfer of liabilities to General Revenues".

Wedgwood Committee 1936:

The Government of India accepted the suggestions of Public Accounts Committee. On 20th October, 1936 a committee was appointed under the chairmanship of Sri R.L. Wedgwood, the then Chief General Manager of the London and Northern-Eastern Railway. The report was published in June 1937 with the following for reaching recommendations:

a) The Railway should stop paying towards General Revenue.
b) The General Revenues Fund and Depreciation Fund should be strengthened. Rs. 30 crores should be deposited every year.
c) Road completion should be met in all possible ways.
d) More service should be got out of the rolling stock.
e) Closer contact should be maintained with the press and businessmen.

f) A Central Economy Research Committee should be appointed.

In this regard the committee remarked. Each of the principal administrations should maintain the special economy research organisation set up under the auspices of the Pope Enquiry. In case of the some of the smaller administration this may be thought to involve excessive expenses if so, they should be called upon to set up a special organisation of a less expensive kind, but still directed to examining the possibility of effecting further economies. It would also be desirable to have a Central Economy Research Committee consisting of representatives from each one of the principal administrations whose duty it would be to speed up the progress made by the various individual organisations on certain approved lines of general enquiry.

g) Surplus staff should be retrenched.

h) The procedure adopted by the Railway Rates Advisory Committee (1926) should be simplified.

i) Press liaison and railway information officers should be appointed.

j) A publicity bureau should be established.

k) The European staff should be increased.

l) Railways should not be an amalgamated as it would result in inefficient administration.
The recommendations of the committee were of far-reaching importance to improve the financial position of railways. The financial condition of railways improved and by 1942-43 all the debts were repaid by railways taken from general Reserve and Depreciation Funds and the balance dividend to General Revenues. During this period 2,080 kilometres of railway lines were laid. In 1937, Burma was separated from India due to which total railway kilometrage was curtailed by 3200 kilometres. In 1939, the total route kilometrage of the Indian railways was 65,850.

10) Second World War and After (1939-47)

After the period of depression, the financial position of IR had shown a distinct improvement after 1937 and the railways were endeavouring to make good the arrears of maintenance and replacement. But the second World War broke out in 1939 and the railways were put under heavy strains due to improper maintenance and non-replacement of parts on account of the war emergencies. During the period of the second world war to meet any emergency requirements, Sir Guthrie Russel, the then Chief Commissioner of their Railways observed that the Indian railways with their existing capacity, if the necessity arose, could absorb all the coast wise traffic, except coal. Other means of transport contracted to an embarrassing extent and military movements to strategic paths increased, during 1941-42. For transporting war
materials many wagons were reserved and only a few wagons were left for private use.\textsuperscript{366}

The rolling stock and equipments which were worn out and whose replacements long overdue could not be replaced at all.\textsuperscript{367} Moreover, Indian Railways had to send locomotives and railway lines to the Middle East and for this purpose 26 branch lines were dismantled.\textsuperscript{368} There was created an artificial shortage of skilled workers in workshops as some of them were reserved for the production of war material. This was another acute problem for the Indian railways.\textsuperscript{370}

The War Transport Board was created in 1942 for organising alternative means of transport, creating administrative machinery, and devising means to carry troops and essential commodities by rail.\textsuperscript{371} On the recommendation of this board a Central Transport Organisation was set up in February, 1942 to relieve congestion on all Indian railways.\textsuperscript{372} A policy of rationalisation of transport and the system of priorities was also adopted.\textsuperscript{373} But the Bengal Famine of 1943-44 created another problem for the railways.\textsuperscript{374} Besides, the movements of military and military materials and civilians, food grains had to be transported to feed the famine stricken areas. It was really a very hard time for the railways to keep the wagons moving" and "Travel when you must", were the cries of the Government.\textsuperscript{376} Even then the passenger
traffic increased tremendously. Although the passengers were put to great inconveniences, and it caused a great strain on Indian railways in the absence of proper maintenance, yet they earned fabulously during the war period. The annual earnings rose from Rs. 111.52 crores in 1939-40 to Rs. 232.62 crores in 1944-45. The route mileage was reduced to 40509 in 1944-45 from 41,134 in 1939-40.

11) Partition and After (1947-1951)

Many more problems originated during war time were hoped to have been solved scientifically and methodically by the Indianised Railway Board, but nothing was achieved upto 1947. At the close of war a plan was formulated which included the following.

i) Construction of 8,000 kilometres of railway lines in under developed areas.

ii) Establishment of engineering work for production engineer and boilers.

iii) Provision of more passenger amenities at stations and in railway compartments.

iv) Provision of increased facilities for transporting material.

v) Replacement of old engines, passenger coaches and wagons.

vi) Establishment of welfare organisations, and

vii) Regrouping of railways.
The problems which engaged the urgent attention of the government were three-fold:

a) rehabilitation of rolling stock, b) elimination of superfluous staff, and c) improvement in workshop efficiency. But before anything could be done, the partition of country took place which created many new problems and difficulties as a result of which all the plans were upset.

Effect of Partition

Partition brought about severe communal unrest. The migration of population followed this great political upheaval. It created difficulties for the Indian railways which were also divided. Important strategic lines were divided and most of the partition went to Pakistan, workshops were divided on the basis of location and the rolling stock on the basis of kilometrage cum-traffic. The following table shows the partition of railways between Indian and Pakistan:

<table>
<thead>
<tr>
<th></th>
<th>Engines</th>
<th>Coaches</th>
<th>Wagons</th>
<th>Route Kilometragte</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>7248</td>
<td>20166</td>
<td>210099</td>
<td>68933</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1339</td>
<td>4280</td>
<td>40221</td>
<td>11133</td>
</tr>
</tbody>
</table>

Owing to communal unrest the migration of railway, workers took place on a large scale.
126000 railway workers living in Pakistan opted for India; but only 1,08,000 arrived here. Of these 104000 were quickly absorbed by the Indian railways. From India 83000 railway workers migrated to Pakistan.

HISTORICAL DEVELOPMENT OF INDIAN RAILWAYS - Post Independence

The Indian Railways occupy a significant and prestigious place in the transportation network of the country. A railway system is a large-scale undertaking possessing all the characteristics of a large industry operating under the law of increasing returns. It tries to carry the maximum possible traffic which reduces the cost of operation. Although, the first railway train in India was inaugurated on the 16th April 1853, but no significant improvement was made till freedom. After independence, a systematic effort has been made for the development of Indian Railways under plan periods.

First Five Year Plan:

The first five year plan of the Indian Railways was started in April 1951. Planning is a pre-determined course of action to achieve certain goals or to give certain direction to interpret certain activities.

Before independence there was no such kind of planned development for the Railways. On account of the world wide depression in 1930's Railways had not been able
to maintain their normal expenditure on maintenance and
renewals. At the time of depression the main problem was
financial assistance as the prevailing economic conditions
led to decline in the revenues of the railways and forced
them to reduce their capital outlay to the minimum.

Under First Five year Plan the thrust was given
mainly on rehabilitation of assets and indigenous
development of railway equipment through the establishment
of various production units by railways themselves. This
task was heavy for the planners since large amount of
capital was required for rehabilitation of rolling stock
and tracks. On the other hand industrial and agricultural
production increased and as a result pressure on rail
transport was felt particularly from the third year of
this plan. To meet the situation additional allotments
were made for the railways to accelerate the programmes
for procurement of rolling stock and special measures were
undertaken to increase carrying capacity on the more busy
routes. The other objective of this plan was to provide
better amenities to the travelling public and better
housing and welfare for the staff.
### Rehabilitation and Additions

<table>
<thead>
<tr>
<th>Rehabilitation and Additions</th>
<th>Allocation in Ist Plan (Rs. in crores)</th>
<th>Total Outlay (Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling Stock Plant and Machinery</td>
<td>207.96</td>
<td>253.44</td>
</tr>
<tr>
<td>Track Bridges</td>
<td>70.47</td>
<td>64.41</td>
</tr>
<tr>
<td>Other Structure and Engineering Works Including Internal Coach Factory etc.</td>
<td>45.90</td>
<td>49.96</td>
</tr>
<tr>
<td>Restoration of Dismantled Lines and New Lines and Electrification</td>
<td>34.18</td>
<td>33.20</td>
</tr>
<tr>
<td>Passenger Amenities</td>
<td>15.00</td>
<td>13.29</td>
</tr>
<tr>
<td>Staff Quarters and Staff Welfare Works</td>
<td>24.09</td>
<td>20.52</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>2.40</td>
<td>2.75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>400.00</strong></td>
<td><strong>432.07</strong></td>
</tr>
</tbody>
</table>

Source: Government of India Planning Commission Second Five Year Plan, p. 460.

In the first five year plan, the outlay sanctioned was 432.07 crores. Five hundred locomotives were manufactured and 1090 imported, 4350 coaches were manufactured and 490 imported, 41,200 wagons were manufactured and 20,520 imported, 380 miles of new lines were laid. Just because of the heavy replacement demands, the need for expansion of new lines could not be fully met.
At the end of this plan about 40,000 quarters were built for the Railway employees. The capital at charge was Rs. 96.90 million. The gross earning of railway rose from Rs. 264.62 crores in 1951 to Rs. 315.29 crores in 1955-56. The working expenses rose from Rs. 214.3 crores in 1950-51 to Rs. 258.22 crores in 1955-56.

Second Five Year Plan:

The Second Five Year Plan of Railway covered a period from 1956-61. At the start of this plan main stress was given on the development and modernisation of the Railways in order to meet with the heavy demand of agriculture as well as of industrial production and to face the additional traffic likely to be generated.

The second five year plan made a total provision of Rs. 1125 crores for the development of the Indian Railway, out of which Rs. 225 crores were to be withdrawn from the Depreciation fund, and another Rs. 150 crores were to be made available from railway surpluses. The plan proposed the doubling of 2,571 kilometres, track conversion of 424 kilometres of meter gauge into broad gauge, electrification of 1321.6 kilometres. Dieselisation of 2068.8 kilometres of railways, construction of 1,347 kilometres of new lines and track renewal of 12800 kilometres. Rolling stock was to be supplemented with 2258 locomotives, 11,364 passenger coaches and 107247 wagons. The plan also provided for
the establishment of 6 new railway workshops, a metre
 gauge coach building factory and the expansion of the
 chittranjan locomotive workshop.

The target of production for this workshop and the
coach building factory were placed at 300 and 350 per year
respectively. The Tata Engineering and Locomotive Co. was
expected to manufacture 100 railway engines (metre gauge)
per year. It was further expected that by the end of the
second plan the production of passenger coaches would rise
from 1250 to 1806 and that of wagons from 13,526 to 25,000
per year.

The plan further provided a sum of Rs. 9 crores
for the construction of the Ganga Bridge at Mokameh,
Rs. 35 crores for the construction of 66,000 quarters and Rs.
15 crores for staff welfare. The plan envisaged the
establishment of 13 railways hospitals and 75
dispensaries.

The break-up of the total expenditure Rs. 1125
crores is given in the following table:

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Outlay (headwise allocation Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rolling stock</td>
<td>380</td>
</tr>
<tr>
<td>2. Workshop plant and machinery</td>
<td>65</td>
</tr>
<tr>
<td>3. Track renewals</td>
<td>100</td>
</tr>
</tbody>
</table>
4. Bridge works 33
   Rehabilitation 18
   Ganga Bridge 9
   New Bridge 6
5. Line capacity work including expansion of goods sheds 186
6. Signalling and safety works 25
7. Electrification 80
8. New Constructions 66
9. Staff welfare and staff quarters 50
10. Training Schools 3
11. Store depots 7
12. Railway users amenities 15
13. Other projects including Vishakhapatnam Port 15
14. Railway shares in Road Transport Undertakings 10
15. Stores suspense 50
16. Extra for imported steel 40

Total 1125


As a result of the establishment of new workshop a new furnishing unit in the Integral coach building factory and the expansion of the Chittaranjan Locomotive Works, the periodical overhauling capacity was expected to increase by 23 and 71 percent respectively for broad gauge and
metre gauge locomotives, 69 percent and 125 per cent respectively for broad and metre gauge coaches and 89 and 92 per cent respectively for broad and metre gauge wagons.\textsuperscript{43}

**Achievements under the Second Five Year Plan**

During 1955-56, 221.5 kilometres of new lines were opened and 930.7 kilometres of lines were under construction. In addition during the same year, 668 locomotives (437 broad gauge, 221 metre gauge and 10 narrow gauge), 1241 passenger coaches (449 B.G., 744 M.G., and 48 N.G.) and 20,150 wagons (10,518 B.G. and 9632 M.G.) were placed on line.\textsuperscript{44}

During 1956-67, 153.31 kilometres of lines were opened to traffic and 911.12 kilometres of lines were under construction. The new rolling stock placed in line consisted of 579 locomotive, 1301 passenger coaches and 32024 wagons.\textsuperscript{45}

During 1957-58 lines of 269 kilometres were opened to traffic the rolling stock place on line comprised 603 locomotives, 1408 passenger coaches and 29634 was wagons.\textsuperscript{46}

During 1958-59, 306 kilometres of new lines were opened to traffic. The rolling stock placed on line consisted of 371 locomotives, 1740 coaches and 16701 wagons.\textsuperscript{47}
The rail road Ganga bridge at Mokameh was opened to traffic on May 1, 1959, and the foundation stone for the Brahmaputra Bridge at Pandu was laid on January 10, 1960. During 1958-59, 11,481 quarters were built for the railways staff.

Development Programmes during the Third Five Year Plan

The Third Five Year Plan covered a period from 1961 to 1966 in which stress was laid to keep rail transport capacity ahead of demand. A beginning was made toward, modernisation of track with dieselisation and delectrification improvement in rolling stock was also initiated. This has continued to be the objective during the subsequent Annual Plan years 1966-67, 1967-68 and 1968-69.

During the Third Five Year Plan the development programme had been formulated on the basis of figures of second five year plan. The volume of traffic was expected to increase to 91 million tonnes by 1965-66 i.e. by 59 per cent. The goods traffic was to reach a figure of about 24.5 crores; tonnes in 1965-66 the last year of the third plan. Railway development programmes of Third Five Year Plan also provided for an increase of 3 per cent per annum of non-urban traffic. During this plan it was envisaged to provide maximum possible frequency of train services at peak period. The programme of rolling stock provided for
the procurement of 1764 locomotives 7879 coaching vehicles and 11744 wagons in terms of (4 wheelers). These figures include replacement alongwith addition.50

Third Five Year Plan provided for a sum of Rs. 1220 crores to be spent on the following items.

### Development Programmes during Third Five Year Plan

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Allocation (Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rolling stock</td>
<td>482</td>
</tr>
<tr>
<td>2. Electrification</td>
<td>70</td>
</tr>
<tr>
<td>3. Signalling and safety works</td>
<td>25</td>
</tr>
<tr>
<td>4. New lines</td>
<td>120</td>
</tr>
<tr>
<td>5. Workshop plan and machinery</td>
<td>50</td>
</tr>
<tr>
<td>6. Track renewals</td>
<td>170</td>
</tr>
<tr>
<td>7. Line capacity works</td>
<td></td>
</tr>
<tr>
<td>8. Bridge works</td>
<td></td>
</tr>
<tr>
<td>9. Other structural works</td>
<td>228</td>
</tr>
<tr>
<td>10. Other electrical works</td>
<td></td>
</tr>
<tr>
<td>11. Staff quarters and staff welfare</td>
<td>50</td>
</tr>
<tr>
<td>12. Users amenities</td>
<td>15</td>
</tr>
<tr>
<td>13. Road services</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1220</strong></td>
</tr>
</tbody>
</table>

Source: Planning Commission, Third Five Year Plan, p.244.
At the end of the Third Five Year Plan the capital at charge was Rs. 2680.23 crores as against Rs. 1250.87 crores in 1960-61. Rupees 61 crores were spent on staff quarters and other amenities for staff, 71550 quarters were built during third plan and there was also progress in providing amenities to the passengers.51

Fourth Five Year Plan (1969-1974)

Fourth Five Year Plan commenced from 1969 to 1974. The main thrust of this plan had been on the demand of freight and passenger traffic. Besides other objectives of this plan are as follows:

i) To modernise the prevailing system in respect of equipment and practices to the maximum extent possible with the available resources in order to improve efficiency and to reduce cost.

ii) To extent the more efficient broad gauge system to areas of rapid economic development and high traffic potential by converting some of the assisting metre gauge lines to broad gauge and constructing new lines.

iii) To provide capacity for freight coaching traffic anticipated during the plan period.52

The Fourth Five Year Plan provided an outlay of Rs. 1,000 crores for railway development programmes excluding an expenditure of Rs. 525 crores to be met by railways from their Depreciation Reserve Fund. In
In addition, a provision of Rs. 50 crores was made for schemes for mass transit facilities in the metropolitan cities of Bombay, Calcutta, Madras and Delhi. The main components of the outlay were:-

<table>
<thead>
<tr>
<th>Items</th>
<th>Plan outlay</th>
<th>From Depreciation and Reserve Fund</th>
<th>Total (Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling stock</td>
<td>397</td>
<td>223</td>
<td>620</td>
</tr>
<tr>
<td>Workshops</td>
<td>28</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>Machinery and Plant</td>
<td>7</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Track Renewals</td>
<td>-</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Bridge works</td>
<td>8</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>Line capacity works</td>
<td>275</td>
<td>40</td>
<td>315</td>
</tr>
<tr>
<td>Signalling and safety</td>
<td>27</td>
<td>13</td>
<td>40</td>
</tr>
<tr>
<td>Electrification</td>
<td>81</td>
<td>1</td>
<td>82</td>
</tr>
<tr>
<td>Other Electric works</td>
<td>4</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>New Lines</td>
<td>83</td>
<td>-</td>
<td>83</td>
</tr>
<tr>
<td>Staff Welfare</td>
<td>13</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Staff quarters</td>
<td>27</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td>User's amenities</td>
<td>20</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>Other specific works</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Road services</td>
<td>10</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Inventories</td>
<td>15</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1000</strong></td>
<td><strong>525</strong></td>
<td><strong>1525</strong></td>
</tr>
<tr>
<td><strong>Metropolitan Transport</strong></td>
<td><strong>50</strong></td>
<td>-</td>
<td><strong>50</strong></td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>1050</strong></td>
<td><strong>525</strong></td>
<td><strong>1575</strong></td>
</tr>
</tbody>
</table>

In so far as the rolling stock programme is concerned the plan provided for the following additions and replacements:

Additions and Replacements in the Rolling Stock Programme

<table>
<thead>
<tr>
<th>Items</th>
<th>Rolling stock on line at the end of 1968-69</th>
<th>Programme for IV PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Addition</td>
</tr>
<tr>
<td>Locomotives</td>
<td>11555</td>
<td>652</td>
</tr>
<tr>
<td>Steam</td>
<td>10046</td>
<td>-</td>
</tr>
<tr>
<td>Diesel</td>
<td>996</td>
<td>369</td>
</tr>
<tr>
<td>Electrical</td>
<td>513</td>
<td>283</td>
</tr>
<tr>
<td>Wagons (in terms of 4 wheelers)</td>
<td>484985</td>
<td>76982</td>
</tr>
<tr>
<td>Passenger coaches, Rail cars</td>
<td>32729</td>
<td>3250</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>Electric Multiple wrrits</td>
<td>1562</td>
<td>596</td>
</tr>
</tbody>
</table>

Source: Fourth Five Year Plan, p. 343.

A programme of converting 1500 kilometres of metre gauge line into broad gauge line would be taken as a part of the long terms plan. Doubling of tracks during this plan was proposed on 1800 kilometres. At the early stage of Fourth Five Year Plan, new lines construction was in progress and it was estimated to increase to a length of 1022 kilometres by the end of the Fourth Five Year Plan.53
By the end of the IV Five year Plan a tremendous development has taken place. Modernisation and improvement to signalling telecommunication had been much better. At the end of this plan the multichannel microwave links were operated on 7506 Kms. The task of providing basic amenities such as proper booking arrangements, waiting rooms and supply of drinking water at all the stations was completed.  

Thus the Fourth Plan had given continuous emphasis not only in bringing the rail transport ahead of the traffic demands but also on modernisation to improve efficiency of the Railways.

Fifth Five Year Plan (1974-79)

The Fifth Five year Plan was started from 1974-79. The main trends upon which this plan focuses are as follows:

i) Development of rapid transit system in metropolitan cities where phenomenal growth of industry and commerce had taken place.

ii) Improvement in financial viability through cost reduction techniques, resource mobilisation, and optimum utilisation of assets.

iii) Achievement of national self-sufficiency in Railway equipments.

iv) Longer passenger trains on long distance routes and introduction of coaches with higher carrying capacity.
As a matter of fact all these factors play very important role for adequate functioning and increasing efficiency of the Railways.

For the first three years of the plan the expenditure on railway development was expected to be about Rs. 1149 crores, and for the next two years the proposed outlay was Rs. 1053 crores. By 1978-79, Indian railways were to be equipped to carry an estimated originating freight traffic of 250 to 260 million tonnes. Emphasis was laid on the better utilisation of the existing stock (Locomotives, wagons etc.) and on reducing the turn round time.

Full provisions were made for the completion of ongoing traffic and project oriented lines. Some provision was made for new lines of promotional character to the extent permitted by available resources. The planners expected that by the end of the plan, the Madras-Trivellore section would be fully electrified and the electrification of Waltair-Kirandul and Madras-Vijaiwada sections would have reached an advanced stage.

It should be added that adequate provision was also made for meeting the Railway share of investment in Road Transport Corporation. The outlay of Rs. 50 crores was provided for metropolitan rail transport schemes. Whereas the Draft plan had provided for Rs. 2550 crores for
railway development, the proposed outlay comes to Rs. 2202 crores as detailed below.  

<table>
<thead>
<tr>
<th>Period</th>
<th>Outlay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-77 (3 years)</td>
<td>Rs. 1149 crores</td>
</tr>
<tr>
<td>1977-79 (2 years)</td>
<td>Rs. 1053 crores</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Rs. 2202 crores</strong></td>
</tr>
</tbody>
</table>

During the fifth five year plan development programme consisted of the freight traffic volume to the tune of about 330 million of originating tonnage, so that the development of transport infrastructure should not act as a hurdle to the development of other sectors of the economy. In this plan it was also felt necessary on the part of the main users of railways namely steel plants power houses etc, to modernise their handling facilities in a bid to reduce detention of wagons to the minimum. Under the Fifth Five Year Plan period it was proposed to electrify about 1800 kms route of the Indian Railways. The question of setting up some capacity power stations for Railways to assist in the uninterrupted supply of electric power on the electrified routes was also visualised in this plan.

The Fifth Five year Plan was terminated one year earlier when a new Government came into power and it introduced the concept of rolling plan which remained in force till 1980. During this four year period of the Fifth Five Year Plan
the railways had broken all previous records of achievement. The electrified routes had increased by more than 12 times. Since the beginning of the Fifth Five Year Plan the number of diesel locomotives had gone up by more than 100 times from a mere 17 in 1951 to 2025 in 1977-78 and electric locomotive by more than twelve times from 72 to 901 at the end of the Fifth Plan. Modernisation and improvement of signalling and telecommunication had also made much headway.\(^\text{59}\)

In 1977-78 the passenger traffic was 35 crores as against 12.5 crores in 1950-51. The earning from second class passengers were 557 crores in 1977-78 as compared to 84.47 crores in 1950-51. The freight traffic grew rapidly which from 73.2 million tonnes in 1950-51 had gone upto 210.8 million tonnes in 1977.78.\(^\text{60}\)

**Annual Plan (1979-80)**

The annual plan for Railways (1979-80) provided for Rs. 650 crores including Rs. 18 crores for metropolitan transport and Rs. 5 crores for passenger amenities.

New broad and metre gauge line were proposed to be constructed in Assam, Meghalaya, Tripura and Mizoram. In some states gauge were being converted. A sum of Rs. 42 crores, has been provided for the construction of new
lines. New sections - Delhi-Mathura Vadodara-Ratlam, and Godhra Anand were to be electrified during the year under review.

Sixth Five Year Plan (1980-85)

The Sixth Five Year Plan covered the period of 1980-85 and was described as a rehabilitation plan on account of much needed emphasis on renewals and replacements of the Railway assets. The Sixth Five Year Plan also focussed attention on different aspects of Railway Development which are as under:

i) To enhance the capacity for handling the anticipated increase in freight passenger traffic.

ii) To modernise the railway system in respect of its equipments and practices.

iii) To promote better utilisation of existing assets and to move further in the direction of self sufficiency in equipments by undertakings increased local production of critical items, and

iv) To stimulate research and development in the field of modernisation and improvement of technology.61

The sixth five year plan of Railways had a total outlay of Rs. 5100 crores.

At the beginning of Sixth Five year Plan there was immediate need of 5680 coaches and 780 diesel and electric locomotives. Under this plan a proposal was made for track
renewal of about 14000 km and a new wheel and axle plant was set up in Bangalore to meet the demand of wheels and axles. For the electrification programme it was proposed to energise about 2,800 kms during this plan period.

During the Sixth Plan, Development Programme also included conversion of narrow and metre gauge into broad gauge, expansion and modernisation workshops automation of signalling and improvement of telecommunication, Metropolitan Transport projects, better staff welfare and moral passenger amenities and overall improvement of Railway service.

Sixth Five Year Plan

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Major Heads</th>
<th>Rs. (in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rolling stock</td>
<td>2100</td>
</tr>
<tr>
<td>2.</td>
<td>Workshops and sheds</td>
<td>280</td>
</tr>
<tr>
<td>3.</td>
<td>Plant and machinery</td>
<td>230</td>
</tr>
<tr>
<td>4.</td>
<td>Track renewal</td>
<td>500</td>
</tr>
<tr>
<td>5.</td>
<td>Bridge works</td>
<td>90</td>
</tr>
<tr>
<td>6.</td>
<td>Traffic facilities</td>
<td>480</td>
</tr>
<tr>
<td>7.</td>
<td>Signalling and Telecommunication</td>
<td>90</td>
</tr>
<tr>
<td>8.</td>
<td>Electrification</td>
<td>405</td>
</tr>
<tr>
<td>9.</td>
<td>Other Electrical works</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Amount</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>10.</td>
<td>New lines</td>
<td>380</td>
</tr>
<tr>
<td>11.</td>
<td>Staff Welfare</td>
<td>30</td>
</tr>
<tr>
<td>12.</td>
<td>Staff quarters</td>
<td>60</td>
</tr>
<tr>
<td>13.</td>
<td>Users amenities</td>
<td>25</td>
</tr>
<tr>
<td>14.</td>
<td>Other specified works</td>
<td>20</td>
</tr>
<tr>
<td>15.</td>
<td>Inventories</td>
<td>40</td>
</tr>
<tr>
<td>16.</td>
<td>Investment in road services</td>
<td>50</td>
</tr>
<tr>
<td>17.</td>
<td>Metropolitan transport project</td>
<td>225</td>
</tr>
</tbody>
</table>

|   | Total                                            | 5100   |


Achievements during Sixth Plan

The total length of the Indian Railways had increased from 53,596 kms in 1950-51 to 61,650 kms in 1984-85, out of this 6440 kms were electrified by the end of this plan. The matter of rolling stock Indian Railways had 8209 locomotives 19628 coaching vehicles and 205596 wagons in 1950-51 when by the end of sixth plan, the number of locomotives rose to 10,128 and that of coaches and wagons increased to 38,583 and 365390 respectively.63

During this plan about 900 kms of new lines were constructed. The freight traffic carried 264.76 million tonnes in the terminal year of the sixth plan. The freight revenue was 236.4 million tonnes in 1984-85 as against 73.2
million tonnes in 1950-51. During this plan 1499 kms of metre gauge routes were converted into broad gauge and 681 kms of double line were completed during this plan. Nearly 26000 quarters had been added during the sixth plan period.  

Seventh Five Year Plan

The Seventh Five Year Plan had been drawn in the light of the view observed by several committees like Rail Traffic Enquiry Committee, Railway Reform Committee, Transport Policy Committee, Working Group of Energy Policy Committee and lastly the Parliamentary Committees.

The main objectives of this plan were to meet Rail Transport needs of urban and rural areas and to provide transport infrastructure necessary for the growth of the economy and accessibility to the remotest backward areas and this needs the integrated development of all modes of transport.

Seventh Plan also selected areas of Railway development and gave priority to electrification of high density routes. Introduction of heavier trains, development of rapid handling terminals, improved maintenance facilities and practices and adoption of computer based information system. In this plan it is also reviewed that in case of delay in the matter of accessibility and opening of areas for development by rail transport, alternative
modes of transport which could be more economic should be considered.66.

During Seventh Five Year Plan it is proposed to acquire 96,000 wagons (in terms of four wheels) 6970 passenger coaches 950, electrical multiple units and 1235 diesel/electric locomotives. This plan has a target of about 19,000 to 21,000 kms of track renewal with priority to high density areas. In place of wooden sleepers, concrete sleepers would be used. About 3400 kms would be electrified and preference would be given to the busy as well as high density routes. The capacity of the manufacture of passenger coaches and electric locomotives would be increased and computer based freight information system will be brought into operation.67

**Seventh Five Year Plan**

(Outlay head-wise)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Item</th>
<th>(Rs. in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rolling stock</td>
<td>4290.30</td>
</tr>
<tr>
<td>2.</td>
<td>Workshops and sheds</td>
<td>1200.00</td>
</tr>
<tr>
<td>3.</td>
<td>Machinery and plant</td>
<td>1200.00</td>
</tr>
<tr>
<td>4.</td>
<td>Track renewal</td>
<td>2500.00</td>
</tr>
<tr>
<td>5.</td>
<td>Bridge works</td>
<td>284.00</td>
</tr>
<tr>
<td>6.</td>
<td>Lime Capacity Work</td>
<td>1300.00</td>
</tr>
<tr>
<td>7.</td>
<td>Signalling and Safety</td>
<td>400.00</td>
</tr>
<tr>
<td>8.</td>
<td>Freight operation information system</td>
<td>400.00</td>
</tr>
</tbody>
</table>

contd....
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Electrification</td>
<td>830.00</td>
</tr>
<tr>
<td>10</td>
<td>Other electric works</td>
<td>80.00</td>
</tr>
<tr>
<td>11</td>
<td>New lines</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Staff quarters</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>User amenities</td>
<td>175.00</td>
</tr>
<tr>
<td>14</td>
<td>Staff welfare</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Other specified works</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Railway Research</td>
<td>75.00</td>
</tr>
<tr>
<td>17</td>
<td>Inventories</td>
<td>100.00</td>
</tr>
<tr>
<td>18</td>
<td>Metropolitan Transport projects</td>
<td>400.00</td>
</tr>
</tbody>
</table>

**Total** 12334.30

Source: Seventh Five Year Plan, p. 215.

A total outlay of Rs. 12,334.30 crores was provided under the various heads during Seventh Plan to enhance the various development programmes of the railways. In January 1987, the Planning Commission approved an additional outlay of 1200 crores to meet the further demands of the Railways.

In 1986-87, the second year of Seventh Five Year Plan, the Planning Commission allocated an annual outlay of Rs. 2650 crores for the Railways. This year showed a massive increase in freight loading on Indian Railways when the loading increased from 286.4 million tonnes in 1985-86 to 307.31 million tonnes in 1986-87. This comprised 277.75
million tonnes of revenue earning traffic and Rs. 29.56 million tonnes of non-revenue earning traffic which works out an increase of 7.3 per cent during the year. The transport output when measured in terms of net tonnes kms reached 223.1 million registering an increase of 8.35 per cent over the last year. The main efficiency indicator viz. net tonne kms. per wagon per day reached all time high 1420 (B.G.) as against 1296 (B.G.) in 1985-86 thereby showing a further increase of 9.6 per cent.

During the year under review, railway acquired 241 locomotives, 1193 coaches, 96 EMUS and 16,045 wagons (in terms of 4 wheelers). The pace of electrification had also been stepped up and during the year 573 kms were energised against 461 route kms in the previous year. Similarly 3978 kms of track renewals were completed during the year as against 3,578 in 1985-86.

Eighth Five Year Plan

This plan was formulated to improve the overall capacity of Indian Railways. Priority were given to the computerization of railway stations, conversion of narrow and meter gauge into broad gauge. This plan also paid heed towards the electrification of highly density routes. In last two years of the eighth plan, i.e. in 1995-96 and in 1996-97, annual plan outlay had fixed at Rs. 7500 and 8130.
crores respectively. The biggest construction project undertaken in the eighth plan was the construction of broad gauge railway line between Udhampur and Srinagar - Baramula in the state of Jammu & Kashmir. The second one is the construction of a railway bridge over the Ganga at Patna in Bihar, and the third is the conversion of the 1500 volts Direct Current (DC) system of the electrified sections in the Mumbai area both on the Central and Western Railways.

Qazigund is the highest point on the line and also the highest broad gauge railway station (on completion of the project) over the Indian Railways. Qazigund will be 730 metres or 2700 feet higher than Similiguda, at present the highest station on the broad gauge system, on the Visakhapatnam - Kottavalasa - Kirandul line of the South Eastern Railways.

The problem will be how to tackle the steep gradients the line has to negotiate in order to reach this height. The easier way is to take an alignment which has very steep gradients of even one in fifty (one unit length of vertical journey for fifty units of horizontal travel) and build a line only about 90 kilometres long between Udhampur and Qazigund, 60 kilometres from Srinagar. The line would be shorter, but the cost high. (It was Rs. 1100 crores at 1987-88 prices when a survey was made by RITES followed by one by the Northern Railway).
However, the current practice is to take a line with the minimum gradient, even though the line may be longer. Thus a largely 1 in 100 gradient alignment was chosen for a 150 kilometre stretch between these two points at an estimated cost of Rs. 780 crore. The Planning Commission, in its wisdom, had declined to accord clearance to this line in 1988.

The Chenab is the major river that has to be bridged for taking the line to gazigund. It will be about 900 metres long and may not pose insurmountable problems, although swift-flowing streams might.

1996-97 which was the last year of the Eighth Plan, had a grand project for the construction of longest tunnel. The longer alignment may have a total of 103 tunnels, the longest being 14.50 kilometres below the Patni range and the next longer, the one through the Pir Panjal range.

New Technology

When during the second plan period, the Calcutta areas were being electrified, the 3000 volts DC system was chosen. This was in 1957-58. However, about that time the French National Railway SNCF came up with the 25,000 Volt Alternate Current (AC) 50 cycles system and in a remarkable bold decision, IR agreed to adopt it, India being the
second country after France (the Soviet Union too had adopted it about that time) to go in for this new technology. Since then, all electrification works on IR have been undertaken under this system (the latest technology of 2 x 25,000 AC Volt system too has been adopted by IR on the Katni-Bilaspur section of South Eastern Railway as a beginning).

Because of this, the Mumbai area remains isolated from the mainstream electrified routes, as it were. Locos have to be changed at Igatpuri for the Central Railway terminus, and sometimes, when dual voltage locos are available, the changeover takes place near Vihar through a gap between the two systems. We often find diesel locos on Western Railway hauling superfast trains from Mumbai Central upto Vadodara where the 25 KV-suitable electric locos take over.

IR has now decided to convert the entire 1500 Volt DC system in the Mumbai area extending to nearly 400 kilometres, and has allocated Rs. 623.51 crore for this scheme over both the Central and Western Railways. This will enable the Railways to place substations at longer distances than at present, and also facilitate increasing the load of suburban trains from 9 to 12 coaches each.

Besides, the high-horse power electric locos of 5000 horse power being built indigenously at the
Chittaranjan Locomotive Works and the 6000 HP three-phase AC locos being imported and assembled there will be able to operate right up to the two termini in Mumbai hauling trains with higher trailing loads and at greater speed.71

Ninth Five Year Plan

The plan outlay for 1997-98 has been fixed at Rs. 8300 crore. For the year 1997-98 which is the first year of the 9th Five Year Plan, the budgetary support is Rs. 1831 crore which is approximately Rs. 400 crore higher than 1996-97 budgetary support. The amount of Rs. 3419 crore will be internally generated by the Railways to finance the plan outlay. Remaining amount of Rs. 3050 crores is proposed to be raised through the issue of bonds by Indian Railway Finance Corporation and private investment, under BOLT/OYW schemes.

Like last year of eighth plan in this first year of 9th plan also the thrust will be on augmentation and updating of rolling stock, doubling, track renewals, gauge conversion, electrification and new lines.

Following is the highlight of the Budget speech delivered by the Railway Minister, Ram Vilas Paswan72:

<table>
<thead>
<tr>
<th>Annual Plan</th>
<th>Rs. 8300 crore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Resource</td>
<td>Rs. 3419 crore</td>
</tr>
<tr>
<td>Budgetary Support</td>
<td>Rs. 1831 crore</td>
</tr>
</tbody>
</table>
Freight Target : Rs. 430 million tonnes
Provision for New Lines : Rs. 400 crore
Northeast : Over Rs. 300 crore

26,000 wagons, 2000 passenger coaches and over 300 locomotives to be procured.

Source : Indian Railways, February-March, 1997, p. 6)

Taking into account the budgetary support of Rs. 1831 crore, the total resources available with the Railways thus measure up to Rs. 6500 crore against the annual plan size of Rs. 8300 crore for 1997-98. This therefore leaves a gap of Rs. 1800 crore.

It has necessitated raising of additional resources amounting to Rs. 1800 crore, as the Railway Minister pointed out, through very modest and selected adjustments in fares and freight rates.

To mark the celebration of Golden Jubilee of Indian Independence the Railway Budget 197-98 has announced introduction of five Golden Jubilee trains from Ahmedabad, Secunderabad, Bangalore, Ranchi and Visakhapatnam to Delhi. The Budget, seeking to improve the lot of the casual labourers also proposes to regularise 56,000 casual labourers by the end of March, 1998. A special announcement made in the new Budget refers to the travel concession to
licensed porters who will be now able to travel free once in a year.

Among other highlights of the Budget are the target of gauge conversion set at 1200 kms and new development projects in the Northeast and Jammu and Kashmir. To speed up the work on the Udhampur-Srinagar-Baramullah line, the Budget has provided Rs. 75 crore during 1997-98. Taking adequate note on the rolling stock requirement, the new Budget also provides for the procurement of 26,000 wagons, 2000 coaches and 300 locomotives during 1997-98.

During the presentation of Railway Budget for 1996-97 the Railway Minister had clearly mentioned that he wanted the Railways to function not only as a commercial institution but also an efficient and public welfare organisation for the development of backward regions.

Even after fifty years of independence the railways are yet to reach the far off places. Be it the north-east regions of Tripura, Mizoram, Nagaland, Manipur, Meghalaya, Arunachal Pradesh or Sikkim, railways have not reached these States. Similarly, Kashmir also does not have any railway line. The region of Bihar adjoining Nepal and Uttarakhand is also backward as far as railway network is concerned. It will not be possible to develop rail infrastructure in these backward regions as long as financial viability of a railway line is the norm and these regions will continue to remain backward.
Keeping these in view, the Government has decided to construct Udhampur-Baramulla railway line in J & K State and Kumarghat-Agartala, Lumding-Silchar, Harmuti-Itanagar and Begibeel Bridge on Brahamputra river in North-East region. The Government is also providing sufficient funds for completion of these projects. The Government is making a provision of Rs. 400 crore as against Rs. 220 crore for the last year. This is the highest ever provision made for new lines. More than 300 crore have been allotted for development and expansion of rail infrastructure in North-Eastern States alone. More than Rs. 100 crore have been provided for expansion of railway line in Jammu & Kashmir this year. Similarly, the Government has provided increased outlays as far as possible for the backward regions of different States.

On the one hand, development of backward regions is being stressed, on the other the need to gradually increase the transportation capacity of railways for freight and passenger traffic is also being kept in view to meet the growing demand. The railway had made a provision of Rs. 4100 crore to be spent on rolling stock as against a provision of Rs. 2900 crore during 1995-96. It has provided necessary funds for procurement of 26,000 wagons, more than 2000 passenger coaches and more than 300 locos during the year 1997-98. It is hoped that this will enable to
discharge the role in the sphere of transport and contribute to economic progress of the nation.\(^3\)

Indian Railways are truly on the hi-tech path to the 21st century.

Summary

The Indian Railways which have established the most significant and glorious place in the system of transportation in India, are of recent origin and do not have a glorious past.\(^1\) It has reached to its present place gradually.\(^7\)

The early efforts for the introduction of railways may be traced back to the year 1832 when the contraction of railway line between Madras and Bangalore was contemplated.\(^3\) In fact it was the period of 'Railway Mania' as pointed out by Horce Bell.\(^4\)

The East Indian Railway Company and the Great Indian Peninsula Railway Company were incorporated in England for the construction of Railway lines in India.\(^5\) These companies entered into a contract with the East India Company on 17th August, 1849 for the construction of railways in India.\(^6\) Indian Railways development thus started from this date.\(^7\) By 1853 a railway line from Bombay V.T. (Now C.P.S.T.) to Thana, a distance of 21 miles was opened for traffic and the first railway train in India was inaugurated on the
16th April, 1853. In that railway train there was three engines and 14 coaches only. Since then a drastic change has taken place.\(^5\)

Now Indian Railway have undertaken a considerable expansion and modernisation.\(^6\) The route length which was only 32 Kms. in 1853 was increased to 388 electrified and 53208 Kms.\(^1\) non-electrified by 1950-51 and these route length has increased rapidly.\(^2\) In 1988-89 the electrified route was 8898 Kms. and 53099 non-electrified route.\(^3\) Now upto date (1997) the total length route is 62597 Kms. including 14227 Kms.\(^4\) route either double or multi-tracks. About 56% of the total route is on the broad gauge. There are 8590 locomotives, 37953 coaches, 3,49,560 wagons and 7076 railway stations. Besides these, there are 225 repair loco shed, 401 carriage wagons and 49 workshops.\(^5\)
References:

4. Horace Bell, op.cit., 1894, p. 60.
6. R.D. Tewari, "Railways in Modern India", 1941, p. 53.
7. Prof. N. Sangal, "Indian Railways", p. 17.
11. Minute of Lord Canning No. 2 of 29th November, 1858.
12. Minute of Hon'ble S. Naing, April 1861.
17. N. Sanyal, op.cit., p. 84.
19. Ibid., p. 62.
22. Chesney, "Indian Polity", p. 311.
28. Ibid, para 58.
32. Ibid, para 50.
33. Railway Budget 1940-41, para 2.
35. First Five Year Plan, p. 170.
36. Second Five Year Plan, Govt. of India, p. 461.
37. Ibid, p. 462.
39. 1308 miles according to the Railway Budget 1957-58 and 1442 miles according to India 1960, p. 353.
41. Ibid., p. 469.
42. Ibid., p. 473.
43. India 1960, p. 353.
44. India 1957, pp. 343-44.
46. India 1959, pp. 359-60.
47. India 1960, pp. 352-53.
48. Ibid., p. 354.
50. Third Five year Plan, p. 545.
51. Fourth Five Year Plan, p.365.
53. Fourth Five Year Plan, p. 343.
55. Fifth Five Year Plan, p. 70.
56. Ibid., p. 151.
57. Indian Railway Year Book 1981-82, p.17.
58. Fifth Five year Plan, p. 174.
60. Indian Railway Year Book 1981-82, p. 79.
62. S.M. Imamul Haque, "Management of Indian Railways2, 1989, p. 34.
63. Indian Railway Year Book 1984-85, p. 38.
64. I.P. Gupta, Railway's Seventh Five Year Plan, Indian Railway, April 1985, p. 15.
65. Ibid., p. 15.
66. Seventh Five Year Plan, Govt.of India, Planning Commission, p. 218.
68. Indian Railway Year Book 1986-87, p. 15.
73. Ibid., p. 6.